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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,703	04/13/2004	Masahiro Iwahara	251737US0XDIV	2932

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EXAMINER	
SHIPPEN, MICHAEL L	
ART UNIT	**PAPER NUMBER**
1621	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/822,703	IWAHARA ET AL.	
	Examiner	Art Unit	
	MICHAEL L. SHIPPEN	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 10/257,980.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/13/04; 07/16/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102[1]

Claims 12, 13 and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by USP 4,308,404, USP 4,391,997 or USP 4,400,555 each optionally in view of USP 5,777,180[2]. See the examples. The references do not mention the presence of methanol but it appears to be within the claimed range. First, the claims read on acetone feeds wherein the amount methanol present is very low. Since, the prior art does not indicate the presence of methanol, it is reasonable to assume that amount of methanol present is also very low and within the claim range. Second, USP 5,777,180 teaches that it is quite common for acetone feeds to have around 200 ppm of methanol, note lines 22-35 of column 1. So assuming that a normal source of the acetone is used in the prior art, the amount of methanol present is also well within the claimed range.

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[1] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[2] USP 5,777,180 is not relied upon in this rejection as prior art but rather as evidence to the amount of methanol that would be inherent in the prior art acetone feeds.

Claim Rejections - 35 USC § 103[3]

Claims 12, 13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,780,690 or JP-10-175898 each optionally in view of USP 4,391,997 and USP 4,400,555. USP 5,780,690 and JP-10-175898 teach the claimed process except for the series of reaction zones, note Example 1 of USP 5,780,690 and Example 2 and Comparative Example 2 of JP-10-175898. However, such is a well-known expedient in the art as shown by USP 4,391,997 and USP 4,400,555. One would expect to obtain the same advantages taught by USP 4,391,997 and USP 4,400,555 by modifying the process of USP 5,780,690 or JP-10-175898 in the same manner rendering such a modification obvious. Besides the examples, the references teach that the reaction parameters may be varied with the expectation of obtaining similar results. It is well within the skill of the artisan to follow the teaching of the reference to obtain the results taught by the reference. Such variations suggested by the references are therefore considered obvious. The claims read on these obvious variants of the prior art process.

Claims 12, 13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 4,308,404, USP 4,391,997 or USP 4,400,555 each optionally in

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[3] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

view of USP 5,777,180. USP 4,308,404, USP 4,391,997, USP 4,400,555 and USP 5,777,180 are applied as above. Besides the examples, the references teach that the reaction parameters may be varied with the expectation of obtaining similar results. It is well within the skill of the artisan to follow the teaching of the references to obtain the results taught by the reference. Such variations suggested by the references are therefore considered obvious. The claims read on these obvious variants of the prior art process.

Claims 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-10-251179 optionally in view of USP 5,780,690, USP 4,391,997 and USP 4,400,555. JP-10-251179 teaches the claimed process but exemplifies the use of 1% (10,000 ppm) methanol and does not teach a series of reaction zones, note Example 1. It would be obvious to one of ordinary skill in the art that the process could be carried out at a lower methanol concentration. One would be motivated to do such since it is known that the presence of methanol deactivates the catalysts, see USP 5,780,690. As to the claims that require a series of reaction zones, such is a well-known expedient in the art as shown by USP 4,391,997 and USP 4,400,555. One would expect to obtain the same advantages taught by USP 4,391,997 and USP 4,400,555 by modifying the process of JP-10-251179 in the same manner rendering such a modification obvious.

Double Patenting[4]

Claims 8-17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/433155 in view of USP 4,400,555. The respective claims differ only by the end points of the recited ranges and the conflicting claims recite that the acetone is fed to separate reactors. The recited ranges clearly overlap. As to the use of separate acetone feeds, this is well known to have advantages as shown by USP 4,400,555. It would be obvious to one of ordinary skill in the art that the process of instant application could be modified in this manner to afford the advantages similar to those taught in USP 4,400,555.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 8-17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of USP 6,740,784. The

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[4] The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

respective claims differ only by the end points of the recited ranges. The recited ranges clearly overlap.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Michael L. Shippen** whose telephone number is **(571) 272-0647**. The Examiner's normal tour of duty is 7:30 AM to 4:00 PM. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(571) 272-1600**. The official group FAX machine number is **703-872-9306**.

MShippen
August 17, 2004

MICHAEL L. SHIPPEN
PRIMARY EXAMINER
ART UNIT 1621